

AMENDMENTS TO THE CLAIMS

Listing of the Claims:

Claim 1 (*Currently Amended*): A novel polymer support for solid phase peptide synthesis comprising polystyrene backbone and propoxylate function of hexanediodiacrylate crosslinks [[having optimum hydrophilic/hydrophobic balances]].

Claim 2 (*Currently Amended*): A polymer support as claimed in claim 1 wherein the said support ~~has high coupling efficiency and it also suppresses β-sheet formation.~~

Claim 3 (*Original*): The polymer support as claimed in claim 1, wherein the polymer is HDPA-PS.

Claim 4 (*Currently Amended*): The polymer support as claimed in claim 1, [[shows effective swelling]] swells in polar and non-polar solvents and ~~stable enough to withstand all vigorous~~ withstands peptide synthetic conditions.

Claim 5 (*Withdrawn*) A process for preparing the novel polymer support as claimed in claim 1 comprising the step of:

subjecting a monomer and a crosslinker to a step of a suspension polymerization using initiator;

adding a definite amount of diluent to the said suspension polymerization mixture to obtain a organic mixture;

dispersing the said organic mixture in to a polar dispersion medium containing 0.5-1.9% of a stabilizer,

agitating the said organic mixture mechanically to obtain the polymer in the form of beads.

Claim 6 (*Withdrawn*): A process as claimed in claim 5 wherein the reaction was carried out at 75 to 90°C for 5 to 8 hours.

Claim 7 (*Withdrawn*): The process as claimed in claim 5, wherein the monomer used is styrene.

Claim 8 (*Withdrawn*): The process as claimed in claim 5 wherein the crosslinker used is hexanediolpropoxylate diacrylate.

Claim 9 (*Withdrawn*): The process as claimed in claim 5 wherein the initiator used is benzoyl peroxide and the diluent used is toluene.

Claim 10 (*Withdrawn*): The process as claimed in claim 5 wherein the size of the polymer was controlled by the speed of rotation.

Claim 11 (*Withdrawn*): The process as claim in claim 5 wherein the polymer support HDPA-PS under goes the step of chloromethylation for introducing chloromethyl group to the said support, followed by the step of hydrazinolysis to convert the chloromethyl group to amino group.

Claim 12 (*Withdrawn*): The process as claimed in claim 11 wherein the step of chloromethylation is done by using choromethylmethylether in the presence of Lewis acid catalyst.

Claim 13 (*Withdrawn*): The process as claimed in claim 11 wherein the step of hydrazinolysis is conducted by using potassium phthalimide followed by hydrazine hydrate.

Claim 14 (*Currently Amended*): The polymer support as claimed in claim 1 wherein said polymer is prepared in bead form by suspension polymerization using styrene and said crosslinker, [[diluent as]] toluene as a diluent and [[initiator as]] benzoyl peroxide as an initiator and further comprising in presence of a stabilizer in the ratio of 0.5 to 1.9% of a stabilizer.

Claim 15 (*Currently Amended*): The polymer support as claimed in claim [[5]] 14, wherein polymerization is carried out at 75-90°C for 5-8 hours.

Claim 16 (*Currently Amended*): The polymer support as claimed in claim [[5]] 14, wherein the size of the said polymer was controlled by speed of rotation.

Claim 17 (*Currently Amended*): The polymer support as claimed in claim [[1]] 14, wherein a functionalization is carried out by chloromethylation for introducing a

chloromethyl group to the said support, followed by [[the]] a step of hydrazinolysis to convert the chloromethyl group to amino group.

Claim 18 (*Currently Amended*): The polymer support as claimed in claim [[1]]17, wherein chloromethylation is done by using chloromethylmethylether in presence of Lewis acid catalyst and [[the]] a step of hydrazinolysis is conducted by using potassium phthalimide followed by hydrazine hydrate.